

REMARKS

Claims 1-42 are currently pending. By the Office Action of December 7, 2004, claims 1-7, 9-13, 15-22, 24-28, 30-32 and 34-41 were rejected. Claims 8, 14, 23, 29, 33 and 42 were objected to. The Examiner's reconsideration of the rejection is respectfully requested in view of the above amendments and the following remarks.

Applicants gratefully acknowledge the Examiner's indication that claims 8, 14, 27, 29, 33 and 42 would be allowable if they are rewritten to include the elements of the base claims.

Claims 23-25 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for reason given on page 2 of the Office Action. Applicants respectfully disagree, for at least the reasons given below.

The sensor in Claim 16 is essentially used to sense *at least one environmental condition* passively without having the controller generate a signal. However, Claims 18 and 23-25 essentially claim that the signal received is generated by the controller itself to actively measure relative speaker positions.

Claim 18 specifies that the signal is received *at each speaker*, while Claims 23-25 describe three exemplary embodiments of devices that can be used to receive the signal generated by the controller for active measuring purposes.

These devices include, but are not limited to, *an ultrasonic detector, a speaker used as a microphone and a microphone. An ultrasonic detector is a device used to receive ultrasonic signals that originated from the controller. A*

microphone is usually used to receive audible signals that *originated from the controller*. The third device uses, as essentially claimed, *one or more of the speakers as a microphone*. Herein, in a speaker, which is designed to produce sound, is used as a microphone to take in sound as an input. A microphone on the other hand is a device specifically designed to take in sound. Thus, the *ultrasonic detector, the speaker used as a microphone* and the *microphone* as essentially claimed are three different devices that can be used to *receive at each speaker a test signal originating from the controller* as essentially claimed in Claim 18 from which Claims 23-25 depends.

Therefore Claims 23-25 indeed do particularly point out and distinctly claim the subject matter, which the applicant regards as the invention.

Accordingly Applicants respectfully request the withdrawal of the rejection.

Claim Rejections –35 U.S.C. § 102

Claims 1-2 and 16-17 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Kimura et. al., U.S. Pub. No. 20030128850 for the reasons given on page 3 of the Office Action. Applicants respectfully disagree for at least the reasons given below.

Claims 1 and 16 essentially claim an apparatus and a method for *outputting from an amplifier a multi-channel signal to be played over the speakers* after being adjusted to compensate for sensed environmental signals. One ordinary skilled in the art can readily appreciate that in a multi-channel audio system, such as one used in a theater or home for playing surround sound, the speakers are positioned and adapted to work concomitantly, e.g., different

speakers play different portions of the multi-channel signals, to create the surround sound or stereophonic effects.

In contrast, Kimura teaches an apparatus for emergency broadcasting of information within a tunnel or an underpass response to a disaster that is detected by the system. The system, in part, tries to damp reverberations of the broadcasted audio signal caused by the tunnel or underpass. The system only activates the speakers located in a specific section that contains the emergency.

As a system designed for used during emergencies will not be generating multi-channel signals, Kimura fails to teach or suggest an apparatus and a method for *outputting from an amplifier an amplified multi-channel signal to be played over the speakers* after being adjusted to compensate for sensed environmental signals as essentially claimed in claims 1 and 16.

Thus, Kimura fails to teach or suggest every element of Claims 1 and 16.

Claims 2 and 17 depend form Claims 1 and 16. The dependent claims are patentable over Kimura for at least the reasons given for Claims 1 and 16.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejections.

Claims 1, 16, 18-22, 25, 31, 36, and 38-40 are rejected under U.S.C. § 102(e) as being anticipated by Yoshino et. al., U.S. Pub. No. 20020159602 for the reasons given on pages 3-5 of the Office Action. Applicants respectfully disagree for at least the reasons given below.

Claims 1, 16 and 31 essentially claim sensing at least one environmental condition and adjusting the multi-channel signal to compensate for environmental changes based on the sensed data.

In contrast, Yoshino, discloses a system which detects noise as opposed to environmental conditions (such as temperature and humidity). Indeed, Yoshino discloses use of a microphone to detect noise, not an environmental sensor.

Thus Yoshino fails to teach sensing at least one environmental condition and adjusting the stereophonic signal to compensate for environmental changes based on the sensed data essentially as claimed in Claims 1, 16 and 32.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejections.

Claim Rejections –35 U.S.C. § 103

Claims 3, 5-7, 9-13, 15, 17, 24, 28, 30, 32, 34-36 and 41 are rejected under 35 U.S.C 103(a) as being unpatenable over Yoshino in view of Pulfrey, U.S. Patent No. 5,493,620 for the reasons given on pages 5-8.

The above claim rejections are based, in part, on Yoshino teaching every element of the above cited Claims 1, 16 and 32. However, as discussed earlier Yoshino fails to teach every element of Claims 1, 16 and 32.

Pulfrey discloses, a high fidelity sound reproducing system that includes at least one dynamic speaker having a voice coil operatively driving a diaphragm. Each individual has an individual differential power amplifier that drives the speaker. Pulfrey does not disclose sensing at least one environmental condition

and adjusting the multi-channel signal to compensate for environmental changes based on the sensed data. Thus Pulfrey fails to cure the deficiencies of Yoshino.

Therefore, even if Yoshino was combined with Pulfrey, the combination fails to teach or suggest every element of Claims 3, 5-7, 9-13, 15, 17, 24, 28, 30, 32, 34-36 and 41.

Further still, there is no motivation to combine Yoshino with Pulfrey. Applicants agree that Yoshino fails to disclose the detector/sensor disposed in each of the speakers. In failing to disclose the detector/sensor Yoshino fails to disclose the sensor for detecting an environmental change. Yoshino also fails to disclose a detector for *receiving a test signal originating from the controller and for reporting to the controller the test signal received at respective speakers* as is essentially claimed.


Therefore, there is no motivation to combine the references as the combination would fail to teach or suggest every element of claims 3, 5-7, 9-13, 15, 17, 24, 28, 30, 32, 34-36 and 41.

Accordingly, Applicants request the withdrawal of the rejections.

Accordingly, it is respectfully submitted that Claims 1-7, 9-13, 15-22, 24-28, 30-32 and 34-41 in addition to allowable Claims 8, 14, 23, 29, 33 and 42 are in condition of allowance for at least the reasons stated above. All issues raised by the Examiner having been addressed, an early and favorable allowance of this case is earnestly solicited.

Respectfully submitted,

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